Docket JP920020187US1

Appl. No.: 10/720,894
Filed: 11/24/2003

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method in a computer system for assessing the relative complexity of different options for performing a task by the computer system, the method comprising the steps of:

storing programming instructions on a storage medium of the computer system;

executing the instructions by the computer system, wherein the executing causes the computer system to implement a method comprising the steps of:

defining the task as a sequenced set data structure that specifies actions of the task, and sequence information that specifies the order in which particular actions are to be performed;

storing recipes available for performing constituent actions of the task as sequenced set data structures that specify subactions of the recipes for the constituent actions, and sequence information that specifies the order in which the subactions are to be performed; and

determining complexity measures associated with performing the task using different combinations of recipes for constituent actions of the task, based upon complexity measures of actions specified by respective combinations of available recipes; and

presenting a report of the complexity measures associated with performing the task.

2. (original) The method as claimed in claim 1, wherein complexity measures for actions are defined in terms of the complexity measures of available recipes for performing the actions, and complexity measures for recipes are defined in terms of the complexity of the subactions of the recipe.

3. (original) The method as claimed in claim 1, further comprising the steps of:

determining predetermined complexity measures for basic actions that are not specified by a recipe; and

determining specified complexity measures for contracted actions that are performed by a different agent.

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4. (original) The method as claimed in claim 1, further comprising the alternating steps of:

updating complexity measures for recipes in relation to actions whose complexity measures are determined; and

updating complexity measures for actions in relation to recipes whose complexity measures are updated.

5. (original) The method as claimed in claim 1, wherein the complexity measures associated with a particular action performed by a particular agent is based upon the complexity measures for each of the recipes for that action.

6. (currently amended) The method as claimed in claim 1, wherein the sequence information that specifies the order in which particular actions are to be performed sequencing relation specifies, for pairs of actions, that one specified action is sequenced before another specified action.

7. (original) The method as claimed in claim 1, further comprising the step of defining a sequenced set data structure as $S = (A, M)$, in which A is a multi-set element and M is a sequencing relation that specifies an ordered sequence of the elements A in the sequenced set S.

8. (original) The method as claim in claim 7, further comprising the step of defining a sequencing relation for the sequenced set data structure S for two elements a_i and a_j of multi-set element A, such that a_i is sequenced before a_j in set A under the relation M.

9. (original) The method as claimed in claim 1, further comprising the step of delegating the defined task to a primary agent for execution of the task by at least one of the primary agent and one or more contracting agents.

10. (currently amended) The method as claimed in claim 1, wherein a plurality of series of actions exist for performing the defined task, each of the series of actions having a corresponding complexity, and the method further comprising the step of:

_____performing the defined task by executing a <u>selected one of the</u> series of actions<u>, wherein the complexity of the selected series of tasks is less than the complexities of the other series of tasks of the plurality of series of tasks.</u> ~~for which the global measure of complexity for the task is determined to be a minimum.~~

11. (currently amended) Computer software recorded on a <u>storage</u> medium for assessing the relative complexity of different options for performing a task, the computer software comprising:

software code means <u>on the storage medium</u> for defining a task as a sequenced set data structure that specifies actions of the task, and sequence information that specifies the order in which particular actions are to be performed;

software code means <u>on the storage medium</u> for storing recipes available for performing constituent actions of the task as sequenced set data structures that specify subactions of the recipes for constituent actions, and sequence information that specifies the order in which the specified subactions are to be performed; ~~and~~

software code means <u>on the storage medium</u> for determining complexity measures associated with performing the task using different combinations of recipes for constituent actions of the task, based upon complexity measures of actions specified by respective combinations of available recipes;~~;~~ <u>and</u>

_____<u>software code means on the storage medium for presenting a report of the complexity measures associated with performing the task.</u>

12. (currently amended) Computer software recorded on a <u>storage</u> medium for assessing the relative complexity of different options for performing a task, the computer software comprising software code <u>stored on the storage medium</u> for performing the following steps:

defining a task as a sequenced set data structure that specifies actions of the task, and sequence information that specifies the order in which particular actions are to be performed;

storing recipes available for performing constituent actions of the task as sequenced set data structures that specify subactions of the recipes for constituent actions, and sequence information that specifies the order in which the specified subactions are to be performed; and

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determining complexity measures associated with performing the task using different combinations of recipes for constituent actions of the task, based upon complexity measures of actions specified by respective combinations of available recipes;~ and

presenting a report of the complexity measures associated with performing the task.

13. (currently amended) A computer system for assessing the relative complexity of different options for performing a task, the computer system comprising:

a processor; and

a storage device connected to the processor, wherein the storage device has stored thereon a program, wherein the processor is operative to execute instructions of the program to implement a method comprising the steps of:

means for defining a task as a sequenced set data structure that specifies actions of the task. and sequence information that specifies the order in which particular actions are to be performed;

means for storing recipes available for performing constituent actions of the task as sequenced set data structures that specify subactions of the recipes for constituent actions, and sequence information that specifies the order in which the specified subactions are to be performed; and

means for determining complexity measures associated with performing the task using different combinations of recipes for constituent actions of the task, based upon complexity measures of actions specified by respective combinations of available recipes;~ and

presenting a report of the complexity measures associated with performing the task.

14. (currently amended) A computer system for assessing the relative complexity of different options for performing a task, the computer system comprising:

a processor; and

a storage device connected to the processor, wherein the storage device has stored thereon i) a program and ii) recipes available for performing constituent actions of the task as sequenced set data structures, the data structures defining subactions of the recipes for constituent actions and sequence information indicating an order in which the specified subactions are to be performed; and wherein the processor is operative to execute instructions of the program to implement a method comprising the steps of:

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~~a logic element for~~ defining a task as a sequenced set data structure that specifies actions of the task, and sequence information that specifies the order in which particular actions are to be performed;

~~a memory for storing recipes available for performing constituent actions of the task as sequenced set data structures that specify subactions of the recipes for constituent actions, and sequence information that specifies the order in which the specified subactions are to be performed; and~~

~~a data processor for~~ determining complexity measures associated with performing the task using different combinations of recipes for constituent actions of the task, based upon complexity measures of actions specified by respective combinations of available recipes; and presenting a report of the complexity measures associated with performing the task.